Agreement on Coordination of Canadian Terrestrial Broadcasting at 1452-1492 MHz and U.S. Aeronautical Telemetry at 1435-1525 MHz

This agreement deals specifically with the Canadian Terrestrial Broadcasting at 1452-1492 MHz and U.S. Mobile Aeronautical Telemetry Service at 1435-1525 MHz.

Canada is no longer pursuing a frequency allocation for Mobile Satellites in the 1435-1525 MHz band.

In the event that Canada would want to implement a broadcast satellite in the 1452-1492 MHz band a separate agreement would need to be negotiated regarding coordination and use of the satellite. Implementation of a broadcast satellite service could only proceed subsequent to completion of such an agreement between Canada and the U.S. Any such agreement would have to fully protect the interference-free use of the 1435-1525 MHz band for aeronautical telemetry by the United States.

The U.S. requires the entire band 1435-1525 MHz for its aeronautical telemetry operations. Canada requires the entire band 1452-1492 MHz to implement terrestrial digital radio broadcasting (T-DRB). However, because of the geographic location of the principal operations, the United States is able to coordinate with Canadian terrestrial broadcasting stations in certain geographical areas as contained in this agreement. In order to meet its requirements for aeronautical telemetry, the United States must maintain the availability of the remainder of the band in the areas near the border, and the entire 1435-1525 MHz band for the rest of the United States.

The U.S. has current and continuing firm requirements for use of the full 90 MHz of spectrum, 1435-1525 MHz, for Aeronautical Telemetry (ATM). Canada has firm commitments to use 40 MHz of this same band, as indicated in this agreement, for T-DRB to provide a digital service for each AM and FM station. The signal strengths and receiver sensitivities associated with ATM and T-DRB operations are such that the use of the same frequencies for both operations, in the same locations, is not possible. The operation of both types of systems in the same geographic areas therefore requires that the available spectrum be subdivided and used on an exclusive basis. Thus, portions of the band will not be available to each of the users in certain geographic areas.

Because of the geographic distribution of U.S. ATM ground receiving sites and the ATM traffic requirements at these various sites, it is deemed possible to accept sufficient constraints on U.S. ATM use in the area of the U.S./Canada border, to accommodate Canadian use of a portion of this band to T-DRB. Also because of these geographically-differing station locations, the amount of spectrum that can be protected for Canadian T-DRB use is not the same for all locations along the common border. The specifics of the protection agreement set forth below detail this situation, and describe the sub-bands and locations that can be protected. Specifically, the United States has a firm long term requirement to operate in the 1435-1452 and 1483-1525 MHz band along the United States/Canada border except in certain locations as described in this agreement. This provides for 40 MHz contiguous broadband spectrum (plus 2 MHz of guardbands) for broadband ATM assignments.

This agreement is predicated on the assumption that the ATM spectrum that is not protected for Canadian T-DRB will continue to be useable for U.S. ATM operations throughout the country,

and especially in the northern portions of the U.S. Any additional reduction of ATM spectrum in this band beyond that covered by this agreement would seriously and unacceptably degrade U.S. ATM operations.

In furtherance of this agreement the following shall apply:

1. West of 83.25°, and East of 68° West Longitude:

    a. United States use of 1452-1483 MHz will be on a non-interference basis to Canadian T-DRB receiving stations whenever United States transmitters are within radio line-of-sight(4/3 earth radius) of the United States/Canada border. Canadian T-DRB will not protect United States ATM receivers in this band, it being understood that the EIRP of a T-DRB transmitter located in Canada will not exceed, towards the United States, 50 kW at an effective antenna height above average terrain of 1500 meters, or the equivalent balance of power and antenna height.

    b. The Canadian use of 1483-1492 MHz will be on a non-interference basis to United States mobile telemetry ground stations whenever Canadian transmitters are within radio line of-sight (4/3 earth radius) of the United States/Canada border. United States telemetry transmitters will not protect Canadian T-DRB receivers in this band.

2. East of 83.25°, and West of 68° West Longitude:

    The United States use of 1452-1492 MHz will be on a non-interference basis to Canadian T-DRB receiving stations whenever United States transmitters are within radio line-of-sight (4/3 earth radius) of the United States/Canadian border. Canadian T-DRB will not protect United States ATM receivers in this band, it being understood that the EIRP of a T-DRB transmitter located in Canada will not exceed, towards the United States, 50 kW at an effective antenna height above average terrain of 1500 meters, or the equivalent balance of power and antenna height.

3. No United States ATM operations will be conducted in the protected band(s) within Radio Line-of-Sight (RLOS) of the Canadian border without prior coordination and approval of Canada.

4. West of 83.25° West longitude, certain United States ATM transmitters and receivers in the states of Washington, Idaho and Montana will continue to operate in the 1452-1483 MHz band for a minimum of 24 months from entry into force of this agreement without affording protection to Canadian T-DRB operations. After 24 months, Canadian T-DRB operations would be protected from U.S. aeronautical telemetry when Canada advises the U.S. that T-DRB in a given area is ready to be brought into use. Both parties may agree to an earlier implementation of T-DRB transmitters on a case-by-case basis.

5. It is understood that this agreement can be reviewed at the request of either party.